

Advanced Instrumentation for Microbiome Studies (AIMS) Core Facility

Core Leader: Dr. Brandon Briggs

Lab Manager: Eric Henderson

Lab Technician: Tyler Fox

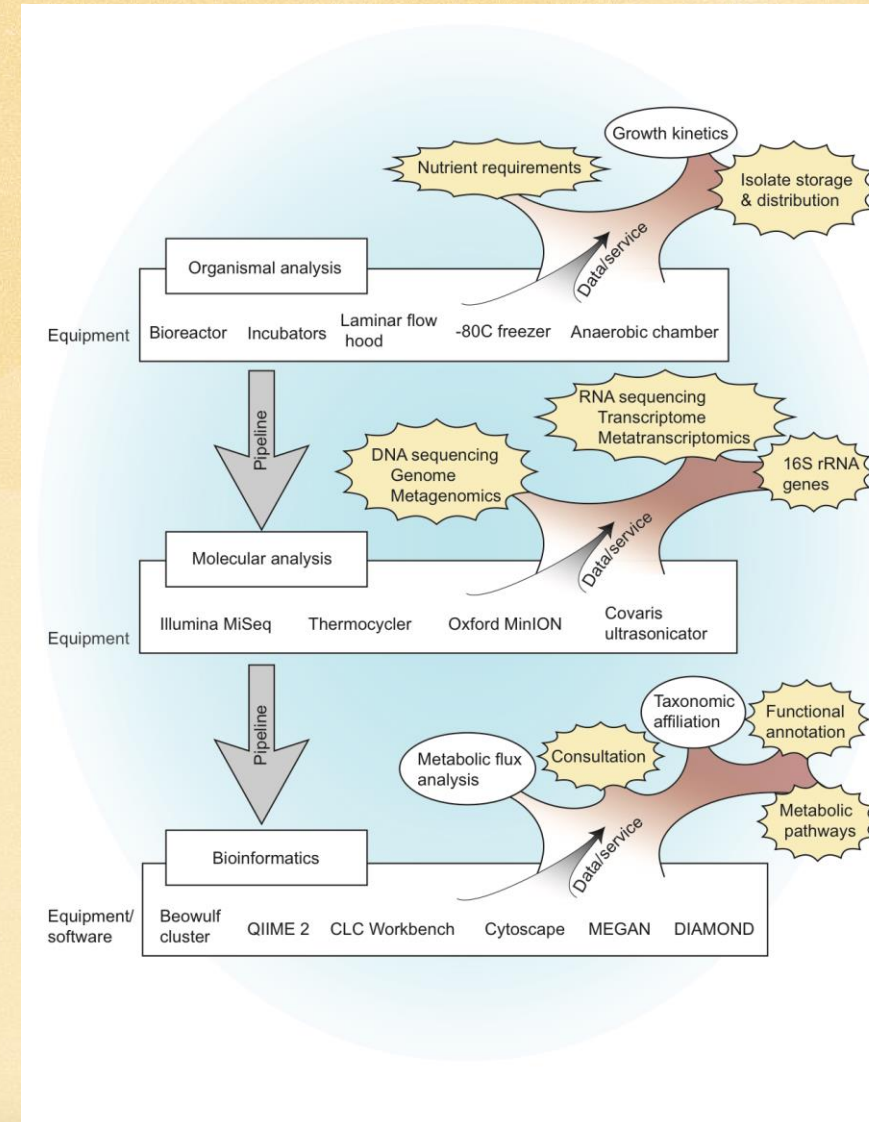


Specific Aims

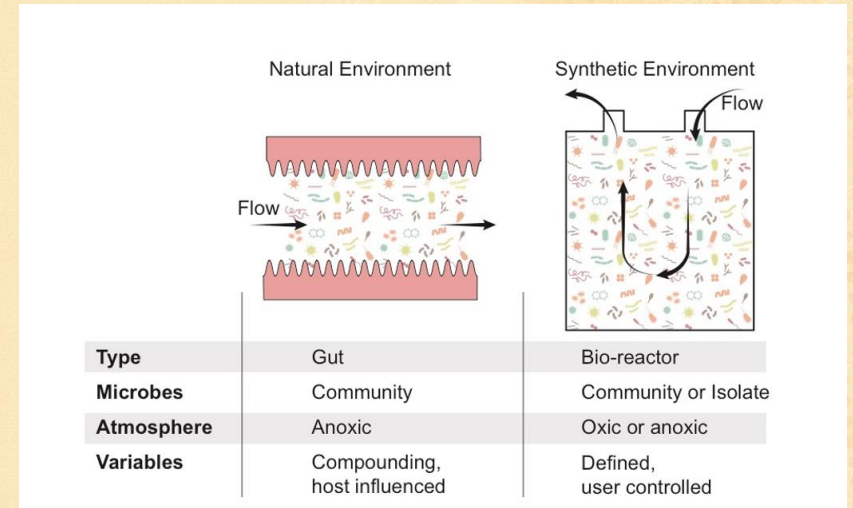
- SA1: Provide and maintain state-of-the-art technologies and procedures for a high throughput pipeline that characterizes microbial communities and isolates.
- SA2: Provide expertise in microbiome research, from experimental design and sample collection to data analysis and bioinformatics.
- SA3: Support and grow microbiome research and dissemination through expert consultation, and by engaging in outreach events with COBRE investigators and the general public.

Core Services

- Characterize microbial isolates or communities.
 - Organismal analysis
 - Molecular analysis
 - Bioinformatics



Organismal Analysis

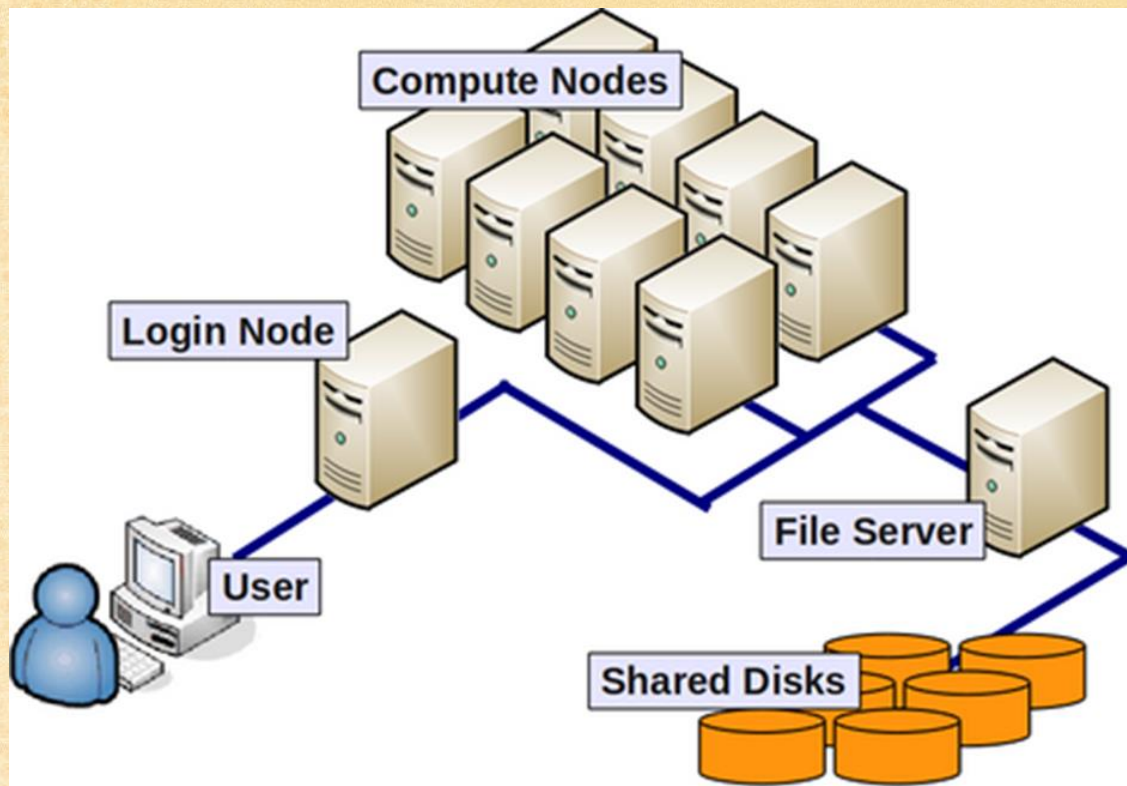


Molecular Analysis



Bioinformatics

Beowulf cluster



164 cores

Pogo Linux Workstation



64 cores

Accomplishments

- Major activities achieved
 - Obtained official space for the core
 - Renovations complete
 - Hired Lab Manager



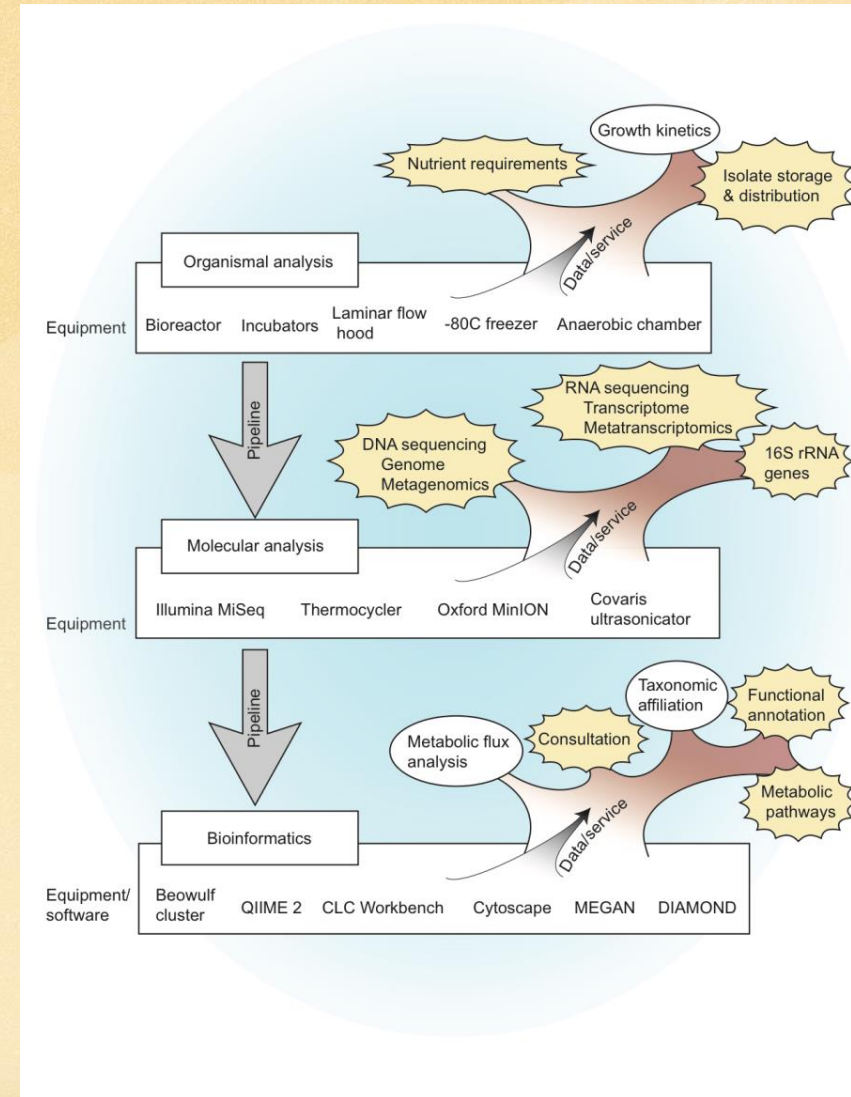
Accomplishments

- Opportunities for training and professional development
 - Tyler Fox
 - Jacob Schwartz
 - Diana Won
- Dissemination of results to communities of interest
 - ASM Alaska Branch
 - IAB seminar
 - UAA Green and Gold
- Supported submission of UAF One-Health COBRE proposal

Support of Projects

- Project 2: Dr. Khrys Duddleston
- Project 3: Dr. Robert Coker

- Developed SOPs
 - 16S rRNA gene sequencing
 - Plant and Fungal ITS sequencing
- Incorporated 54 microbial species



Unexpected Opportunity

- Viral Transport Media
- COVID19 in wastewater

UAA Amazing Stories



Challenges and Moving Forward

- Challenges
 - Delayed Lab Manager hiring
 - COVID19
 - Loss of faculty
- Plans for going forward in the next reporting period
 - Submit recharge center paperwork
 - Develop sample submission procedures
 - Implement Service awards
 - Create SOPs for organismal analysis



Department of
Biological Sciences
UNIVERSITY of ALASKA ANCHORAGE



AMAZING STORIES
BEING WRITTEN EVERY DAY.